CLAIM AMENDMENTS

1. (Previously Presented) A high-frequency semiconductor device comprising:

a substrate;

an Si MOS transistor on the substrate; and

m lateral polysilicon diodes on the substrate, each of the m lateral polysilicon diodes having a forward direction and a reverse direction, wherein

the m lateral polysilicon diodes are connected in series in the forward direction between a high-frequency I/O signal line and an externally supplied voltage, VDD,

a reverse bias voltage impressed on each of the m lateral polysilicon diodes is smaller than 1.1 volts, and

m is an integer greater than 1.

2. (Previously Presented) A high-frequency semiconductor device comprising:

a substrate;

an Si MOS on the substrate; and

n lateral polysilicon diodes on the substrate, each of the n lateral polysilicon diodes having a forward direction and a reverse direction, wherein

the n lateral polysilicon diodes are connected in series in the forward direction, between ground, GND, and a high-frequency I/O signal line,

a reverse bias voltage impressed on each of the n lateral polysilicon diodes is smaller than 1.1 volts, and

n is an integer greater than 1.

3. (Previously Presented) A high-frequency semiconductor device comprising:

a substrate;

an Si MOS transistor on the substrate; and

m lateral polysilicon diodes on the substrate, each of the m lateral polysilicon diodes having a forward direction and a reverse direction, the m polysilicon diodes being connected in series in the forward direction between a high-frequency I/O signal line and an externally supplied voltage, VDD, and n lateral polysilicon diodes on the substrate, each of the n lateral polysilicon diodes having a forward direction and a reverse direction, the n polysilicon diodes being connected in series between the ground, GND, and the high-frequency I/O signal line, wherein

m and n are positive integers;

VDD/(n+m) is smaller than 1.1 volts, and
at least one of m and n is greater than 1.

4. (Previously Presented) The high-frequency semiconductor device of Claim 3, wherein no lateral polysilicon diode is connected to any signal line other than the high frequency I/O signal line.

5. (Currently Amended) A high-frequency semiconductor device comprising:
a substrate;
an Si MOS transistor on the substrate;
a first lateral polysilicon diode on the substrate, the first lateral polysilicon diode having a forward direction and a reverse direction, wherein the first lateral polysilicon diode connects, in the forward direction, a high-frequency I/O signal line to an externally supplied voltage VDD; and
a capacitor having lower and upper polysilicon electrodes, wherein the first lateral polysilicon diode and the lower electrode of the capacitor ~~are from~~ share a single first polysilicon layer, and the MOS transistor has a polysilicon gate from a second polysilicon layer, the first and second polysilicon layers having at least one of (i) different dopant impurity concentrations and (ii) different thicknesses.

6. (Currently Amended) A high-frequency semiconductor device comprising:
a substrate;
an Si MOS transistor on the substrate;
a first lateral polysilicon diode on the substrate, the first lateral polysilicon diode having a forward direction and a reverse direction, wherein the first lateral polysilicon diode connects, in the forward direction, a high-frequency I/O signal line to an externally supplied voltage VDD; and
a capacitor having lower and upper polysilicon electrodes, wherein the first lateral polysilicon diode and the lower electrode of the capacitor ~~are from~~ share a single first polysilicon layer, the MOS transistor has a polysilicon gate, and the upper electrode of the capacitor and the gate are from a second polysilicon layer, the first and second polysilicon layers having at least one of (i) different dopant impurity concentrations and (ii) different thicknesses.

7. (Previously Presented) The high-frequency semiconductor device of claim 5, wherein the polysilicon layer of the upper electrode of the capacitor covers a PN junction of the first lateral polysilicon diode.

8. (Previously Presented) The high-frequency semiconductor device of claim 5, wherein the capacitor includes a dielectric layer and the dielectric layer covers a PN junction of the first lateral polysilicon diode.

Claims 9-12 (Cancelled)

13. (Currently Amended) A high-frequency semiconductor device comprising:
a substrate;
an Si MOS transistor on the substrate;
a first lateral polysilicon diode on the substrate, the first lateral polysilicon diode having a forward direction and a reverse direction, wherein the first lateral polysilicon diode connects, in the forward direction, ground, GND, to a high-frequency I/O signal line; and
a capacitor having lower and upper polysilicon electrodes, wherein the first lateral polysilicon diode and the lower electrode of the capacitor ~~are from~~ share a single first polysilicon layer, and the MOS transistor has a polysilicon gate from a second polysilicon layer, the first and second polysilicon layers having at least one of (i) different dopant impurity concentrations and (ii) different thicknesses.

14. (Previously Presented) The high-frequency semiconductor device of claim 13, wherein the polysilicon layer of the upper electrode of the capacitor covers a PN junction of the first lateral polysilicon diode.

15. (Previously Presented) The high-frequency semiconductor device of claim 13, wherein the capacitor includes a dielectric layer and the dielectric layer covers a PN junction of the first lateral polysilicon diode.

16 (Currently Amended) A high-frequency semiconductor device comprising:
a substrate;
an Si MOS transistor on the substrate;

a first lateral polysilicon diode on the substrate, the first lateral polysilicon diode having a forward direction and a reverse direction, wherein the first lateral polysilicon diode connects, in the forward direction, ground, GND, to a high-frequency I/O signal line; and

a capacitor having lower and upper polysilicon electrodes, wherein the first lateral polysilicon diode and the lower electrode of the capacitor ~~are from~~ share a single first polysilicon layer, the MOS transistor has a polysilicon gate, and the upper electrode of the capacitor and the gate are from a second polysilicon layer, the first and second polysilicon layers having at least one of (i) different dopant impurity concentrations and (ii) different thicknesses.